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Shakil Mosharrof

Portfolio
GitHub
LinkedIn

Experience ↗

Industrial Trainee — **Jan 2023 - Feb 2023**
Brainstation 23 — *Mirpur DOHS*

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

Capture The Flag (CTF)
TryHackMe
Mentor (Later Vice-President), MIST Cyber Security Club

- Became top 4 % on TryHackMe globally . [link]
- Mentor at MIST Cyber Security Club
- CTF Team Lead for Leetcon CTF 2023, became 24th among 300+ teams nationally.

Stackoverflow ↗ | *AskUbuntu* ↗
Provided 4 solutions

- Solution links : 1   2   3   4

Competitive programming — **2020 - 2022**
- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

Projects

Software & Autonomous System Developer 2021 - ongoing
Mars Society's University Rover Challenge (URC) — *USA*
Anatolian Rover Challenge (ARC) — *UKET, Turkey*
Achievements:

- Developed an autonomous rover system using software & communication team for URC-2021 competition which became **champion globally beating 88 teams** in SAR and finally 36 teams in the final Link.
- Developed an autonomous rover system with software & communication team for ARC-2022 competition which **became third among 14 final contestant countries** .Link
- Software & Autonomous Team Lead For URC-2023, became 2nd in Asia in SAR stage.
- Software & Autonomous Team Lead For ARC-2023, became 2nd in Asia & 5th globally.

Pretrained CNN-based Dog Classifier | Code
`Tech Stack` Python, ResNET, VGG16, Machine Learning

Bus Counter Management System Using JavaFX | Code
`Tech Stack` Swing, JavaFX, Java

Military Communication Equipment Repair and Issuing of Spare Parts Management System | Code
`Tech Stack` Web Development, HTML, CSS, JS, PHP, OracleDB

Simple weight machine using HX711 and Arduino | Code
`Tech Stack` Arduino, IOT, HX711 sensor

SoccerBot
`Tech Stack` Arduino, C++

DekhboKinbo | Code
`Tech Stack` C#, .NET Core MVC, Entity

Alumni Information Management System | Code
`Tech Stack` C#, MySQL

Blockchain-based Land Record management system with biometric authentication | Code for contract deployment | Code for frontend and database
`Tech Stack` Blockchain, Django, Arduino, IOT

PyTorch-Create Your Own Classifer | Code
`Tech Stack` Python, CNN, Machine Learning, AWS, Udacity

Research & Publications ↗

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images. [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification.
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

Education ↗

B.Sc in Computer Science and Engineering — **2020 - 2024**
Military Institute of Science and Technology

Higher Secondary School Certificate — **2017 - 2019**
Barishal Cadet College

Skills

Language	Python, C, C++, Git, LaTeX, C#, Bash, PHP, JavaScript
Frontend	HTML5, CSS, JS, Bootstrap
Backend	Flask, Django
Database	MySQL, Firebase
IOT & Robotics	Arduino, Raspberry PI, Jetson Nano & Xavier, LIDAR, ZED-Stereo Cam, ESP-32, PX4 (Pixhawk), ROS, ROS2, MAVROS
App Development	Flutter, Dart
Soft Skills	English (business), Bengali (business), Public Speaking, Extempore Speech
Pentesting Tools & OS	Burp Suite, NMap, Metasploit, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS
Other	Linux, PyTorch, TensorFlow, Git, Docker, Microsoft Excel, Microsoft Word, Microsoft PowerPoint